Short Stay Review Sampling Strategy

The primary objective of the Medicare claim review services contract, which was awarded to Livanta as a Beneficiary and Family Centered Care – Quality Improvement Organization (BFCC-QIO) contractor, is to work toward decreasing Medicare’s paid claims error rate and thus protect the Medicare Trust Fund. Livanta developed an Improper Payment Reduction Strategy (IPRS) as a tool to accomplish this important objective. The IPRS outlines the strategy Livanta uses to sample claims for Short Stay Review (SSR). As a living document, the IPRS is updated at least annually.

Starting with a Question to Sample Short Stay Reviews

In The Tao of Statistics, Livanta’s Chief Statistician, Dr. Dana Keller wrote, “The world of statistics starts with a question.” Coherent research must begin with a clear question, and Livanta’s claim review services team takes this guideline to heart. Before the claim sampling process begins, Livanta’s data team asks the question, “How might claims be optimally selected such that inpatient short stays that are more likely to be paid in error are also more likely to be sampled and reviewed?”


BFCC-QIO Authority to Conduct Claim Review

Using the constraints, stated intent, and implicit directive outlined in the Code of Federal Regulations (see below), and under direction, approval, and oversight of the Centers for Medicare & Medicaid Services (CMS), Livanta devised a flexible approach to sampling that could accommodate monthly fluctuations in short stay claims for potential selection and review.
What is Sampling?

A subset of claims from a larger population is called a sample. The process of creating a sample is called sampling. According to Dr. Keller, “Sampling is a statistical response to limited resources.” Given that reviewing every claim is not always feasible, Livanta’s approach is to select a statistically valid and representative subset of claims to review. This approach gives the team the ability to extrapolate, which is the process whereby a sample’s results are used to estimate what the population’s results would likely have been if every claim had been reviewed.*

Often, a random sample is used. Yet, for this contract, a random sample would not optimally find errors associated with inpatient short stays. For this reason, Livanta devised a weighting system to differentially select short stay claims in a manner that would disproportionally select improper payments among the population of claims.

Over the life of the claim review services contract, Livanta will review tens of thousands of claims. The sample size currently targets more than 1,700 claims per month with adjustments as needed. The volume of sampled short stay claims each month results in small amounts of statistical sampling error and achieves a high degree of statistical precision, which is an expectation of the contract. Secondarily, Livanta assesses every monthly sample for statistical representativeness and independence to further ensure high reliability and validity for regional and national estimates.**

*Extrapolations are only conducted at the CMS regional and national levels and not at the provider level. **Funds are recovered for the amounts found in error during claims review and not for extrapolated amounts.


Sampling Prioritization Scores

Sample prioritization scoring is a statistical process approved by CMS in which four individual components of short stay claims are weighted: cost, frequency, likelihood of improper payment, and duration of stay. The resulting weights are grouped into sampling strata based on their estimated relative risk of improper payment. Higher priority strata are sampled at higher rates than lower priority strata. The ongoing review outcomes inform subsequent weighting and strata assignment.

"The BFCC-QIO shall conduct 'Short Stay Reviews' per 42 CFR 412.3, 42 CFR 405.980, and Hospital Outpatient Regulations and Notices (OPPS) and inpatient prospective payment system (IPPS) rules including annual updates, revisions and amendments as published in the Federal Register. These reviews should be conducted on a sample of Medicare post-payment Part A claims for appropriateness of inpatient admission under the Agency's Two Midnight Rule for acute care inpatient hospitals, long-term care hospitals, and inpatient psychiatric facilities."

How is the Strategic Sampling Accomplished?

Livanta connects to the CMS claims database and downloads eligible short stay paid claims each month for sampling. From that listing, each claim is prioritized for sampling according to its cost, representative frequency, clinical perception of the likelihood of an improper payment, and whether the inpatient stay was ‘0’ or ‘1’ day in length.

This prioritization process forms an improper payment risk score that is used for sample selection. All samples are assessed at the stratum (total score) level to assure their representativeness for statistical independence, information content, and typical values. This quality assurance process supports the reliability and the validity of the results found from the samples.

Sample and Extrapolation Adjustments

Unless the total listing of eligible claims (the population) is sufficiently large, there will be times when the allocated number of claims for each stratum will not be met by the number of claims that are eligible for sampling from the designated strata. Under those conditions, the additional claims are selected from the higher priority strata, in concert with the stated goals of the IPRS.

Technical denials are issued when a medical record has not been received for review in a timely manner. Technical denials are counted in the regional and national estimates as if the claims were reviewed and found to be improperly paid. The subsequent submission of the needed documentation may reverse the technical denial.

Individualized Hospital Results

When a hospital has had at least 30 claims sampled and reviewed over a rolling 3-month period, those claims are aggregated to form a hospital-specific report that is sent to the hospital. The report is a summary of information the hospital has already received during the course of the monthly claims review process and includes identified areas for educational intervention where findings warrant. For subsequent reports, only aggregates of at least 30 newer claims will be used and presented such that information about errors is allowed to age out of each hospital-based report.

Demystifying Extrapolation

Extrapolation is the process of estimating an improper payment amount (or rate) from the results of reviews from submitted Medicare medical records in support of sampled claims. Medicare SSR extrapolated outcomes are reported as a national and regional improper payment amounts and rates according to Medicare policy requirements. Individual provider extrapolations are not calculated.
What Can Hospitals Expect?

Hospitals can expect to receive medical record requests by fax or mail for sampled short stay claims at the beginning of each month. These sampled claims will be reviewed for the appropriateness of inpatient admission under Medicare's Two-Midnight Rule. The greater the number of short stay claims that a hospital submits, the higher the likelihood that some of their claims will be sampled and reviewed.

These requests will be addressed to the medical record contact whom the hospital has designated in the Memorandum of Agreement (MOA) effectuated with Livanta. If a hospital has multiple claims sampled in a month, the medical record requests will be transmitted in one package.

The dates hospitals can expect to see SSR medical record requests are published on Livanta’s website: https://LivantaQIO.com/en/ClaimReview/Review_Types/ssr.html.

Sample Medical Record Request

An example SSR record request template is shown below to help hospitals become familiar with how to identify them.
Questions?

Should you have questions, please email ClaimReview@Livanta.com.

Was this email forwarded to you? Want to get future issues of The Livanta Claims Review Advisor delivered to your inbox? Subscribe today at: https://LivantaQIO.com/en/About/Publications